AMENDMENTS TO THE CLAIMS

Claim 1 (original): A fluid injection head structure comprising:

a substrate;

at least one bubble generator positioned on the substrate;

at least one functional device positioned on the substrate to control the bubble generator;

a first conductive trace composed of a poly-silicon layer; and

a second conductive trace that electrically couples the functional device with the bubble generator, and couples the functional device with the first conductive trace.

Claim 2 (original): The fluid injection head structure of claim 1 further comprising a contact layer positioned between the first conductive trace and the second conductive trace to electrically couple the first conductive trace with the second conductive trace.

Claim 3 (original): The fluid injection head structure of claim 1 wherein the second conductive trace comprises at least one pad.

Claim 4 (original): The fluid injection head structure of claim 1 further comprising a dielectric layer positioned between the first conductive trace and the second conductive trace.

Claim 5 (original): The fluid injection head structure of claim 1 wherein the functional device is a transistor comprising a source, a drain, and a gate.

Claim 6 (original): The fluid injection head structure of claim 5 wherein the transistor is a metal oxide semiconductor field effect transistor (MOSFET) and the gate is composed of poly-silicon.

Claim 7 (original): The fluid injection head structure of claim 6 wherein the gate and

the first conductive trace are formed in a same photo-etching process (PEP),

Claim 8 (original): The fluid injection head structure of claim 1 wherein the material of the second conductive trace is any one of aluminum, gold, copper, tungsten, alloys of aluminum-silicon-copper, and alloys of aluminum-copper.

Claim 9 (original): The fluid injection head structure of claim 1 further comprising:
at least one chamber positioned on the substrate, wherein each chamber comprises at least one orifice through to the surface of the substrate; and
at least one manifold connected to the chamber for allowing fluid to flow into the chamber.

Claim 10 (original):The injection head structure of claim 9 wherein the bubble generator comprises a first bubble generating device and a second bubble generating device positioned adjacent to a corresponding orifice on a corresponding chamber, wherein when the chamber is full of fluid, the first bubble generating device generates a first bubble, and then the second bubble generating device generates a second bubble to eject the fluid from the chamber through the orifice.

Claim 11 (original): The injection head structure of claim 10 wherein the first bubble serves as a virtual valve, restricts flow of fluid out of the chamber.

Claim 12 (original):The injection head structure of claim 9 wherein the injection head is used as a print head of an inkjet printer, the manifold is connected to an ink cartridge, and the fluid is the ink of the ink cartridge.

Claims 13-25 withdrawn.